



House of Commons
Science and Technology
Committee

**The Government's
review of the
principles applying to
the treatment of
independent scientific
advice provided to
government**

Third Report of Session 2009–10

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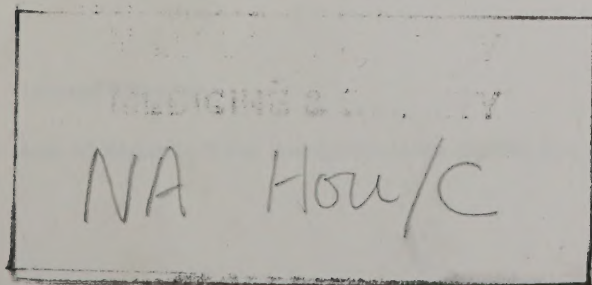
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Third Report of Session 2009–10

Report, together with formal minutes

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The Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Government Office for Science. Under arrangements agreed by the House on 25 June 2009 the Science and Technology Committee was established on 1 October 2009 with the same membership and Chairman as the former Innovation, Universities, Science and Skills Committee and its proceedings were deemed to have been in respect of the Science and Technology Committee.

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The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at http://www.parliament.uk/parliamentary_committees/science_technology.cfm
A list of reports from the Committee in this Parliament is included at the back of this volume.

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The current staff of the Committee are: Glenn McKee (Clerk); Richard Ward (Second Clerk); Dr Christopher Tyler (Committee Specialist); Xameerah Malik (Committee Specialist); Andy Boyd (Senior Committee Assistant); Camilla Brace (Committee Assistant); Dilys Tonge (Committee Assistant); Jim Hudson (Committee Support Assistant); and Becky Jones (Media Officer).

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1 Introduction

1. This short report has been written in response to the Government's announcement that it would consider and issue, by the end of December 2009, a set of principles applying to the treatment of independent scientific advice provided to government ("the Government review"). The Government's decision to consider and issue a set of principles follows the dismissal by the Home Secretary, Rt Hon Alan Johnson MP, of Professor David Nutt as Chairman of the Advisory Council on the Misuse of Drugs (ACMD). Following his dismissal we wrote to Professor Nutt, the Home Secretary, Professor Paul Wiles, Chief Scientific Adviser at the Home Office, and Professor John Beddington, Government Chief Scientific Adviser (GCSA), to request memoranda on the dismissal of Professor Nutt on 30 October 2009; their memoranda¹ are appended to this Report and published as a separate volume as is a subsequent letter from Professor Nutt.²

2. This Government has invested considerable time and energy into improving the mechanisms by which scientific advice is fed through into policy. Former GCSA, Sir David King, set the ambitious goal of every government department having a Chief Scientific Adviser. Under Professor Beddington's tenure that has been realised, with the exception of the Treasury. The Scientific Advisory Committee (SAC) system also has grown and there are now nearly 80 scientific advisory committees, including a number that advise government departments as a whole, rather than on single policy areas. Lord Drayson has been a very strong advocate for science in government, setting up the first Cabinet Committee on science and innovation, and becoming the first Science Minister to attend Cabinet. He is now working to develop the role of departmental Chief Technology Officers and is leading the Government review, which is the topic of this report. **We welcome the Government's success in improving the mechanisms by which scientific advice can be fed through into policy. The network of Chief Scientific Advisers and scientific advisory committees has the potential to strengthen the UK's ability to make policy decisions that are based on the best available evidence and to make the UK Government's science advisory system an international exemplar.**

3. This Report sets out our conclusions and recommendations on the content and scope of the principles that should apply to the treatment of independent scientific advice provided to government ("the principles") and on the arrangements for implementing the principles. In drafting this Report we have concentrated on the provision of independent scientific advice from scientific advisory committees.

4. We have taken scientific advice to include any evidence-based expert advice. We note the comments made by Dr Fiona Measham:

I am a criminologist rather than a chemist or pharmacologist. My specialist field is patterns of drug use, prevalence, motivations, consequences and policy implications. I would argue that in my field there is no neat division between science and politics. I cannot look at changing trends without looking at and providing a critique of

1 PR Letters 1-4

2 PR Letter 1a

changes in legislation, policing and enforcement[...] I think the position of a social scientist is particularly vulnerable to accusations of straying over the line from academia into politics.³

We consider that the principles should clearly cover evidence-based expert advice, including social science and statistics.

Background

5. The relationship between the Government and science advisers is codified by two documents. The Code of Practice for Scientific Advisory Committees ("the Code of Practice") is for the use of scientific advisory committees and councils, their chairs, members and secretariats. It provides guidance "on the operation of scientific advisory committees and their relationship with government".⁴ The way in which government departments obtain and use scientific advice is addressed in the Guidelines on Scientific Analysis in Policy Making ("the Guidelines").⁵ The Guidelines are currently under review by the Government Chief Scientific Adviser.

6. Following the dismissal of Professor Nutt, senior scientists and scientific advisers raised concerns about the Government's treatment of scientific advice and advisers. Lord Rees, President of the Royal Society, and other leading scientists issued a statement on 6 November 2009 ("6 November statement") "to enhance confidence in the scientific advisory system and help Government secure essential advice".⁶ The statement contained three "Principles for the Treatment of Independent Scientific Advice": (1) academic freedom; (2) independence of operation; and (3) proper consideration of advice.

Statement of Principles for the Treatment of Independent Scientific Advice

Below is the statement of principles in full. The full text as published on the website of Sense About Science is at Annex 1.

1 Academic Freedom

- Becoming a member of an independent advisory committee does not reduce the freedom of an adviser to communicate publicly, whether via scholarly publishing and conferences, through the general media or to parliament, subject to the restrictions in existing Codes of Practice, notably:
 - respecting confidentiality
 - not claiming to speak for the Government, and
 - making clear whether they are communicating on behalf of their committees

3 PR 12, paras 2–3

4 Government Office for Science, *Code of Practice for Scientific Advisory Committees*, 2007, p 2

5 HM Government, *Guidelines on Scientific Analysis in Policy Making*, 2005

6 "Call for scientific advisers to be free from political interference", *The Guardian*, 6 November 2009

2 Independence of Operation

- Independent scientific advisory bodies are protected from political and other interference in their work
- In the context of independent scientific advice, disagreement with Government policy and the public articulation and discussion of relevant evidence and issues by members of advisory committees cannot be grounds for criticism or dismissal
- Advisory committees need the service of an independent press office

3 Proper Consideration of Advice

- Reports will normally be published and will not be criticised or rejected prior to publication
- If the Government is minded to reject a recommendation, the relevant scientific advisory committee will normally be invited to comment privately before a final decision is made
- It is recognised that some policy decisions are contingent on factors other than the scientific evidence, but when expert scientific advice is rejected the reasons should be described explicitly and publicly
- The advice of expert committees does not cease to be valid merely because it is rejected or not reflected in policy-making.

7. The principles were drafted following several days of intense discussion across the scientific community and, according to Sense About Science, they “have attracted the support of a number of Chairs and other members of independent Scientific Advisory Committees” and they were “transmitted to Government for a response”.⁷

8. On 23 November 2009 Lord Drayson, the Minister for Science and Innovation, said:

I am currently working with the Government’s chief scientific adviser, colleagues across government and the wider scientific community to develop a set of principles to underpin the relationship between the Government and independent scientific advisers. [...] The particular circumstances in the case of Professor Nutt caused concern in certain parts of the scientific community. That is why it is so important for the Government to reiterate the importance of the independence of scientific advice, and to have clarity between the scientific community and the Government on the rules of engagement between the two. We regard the set of principles that have been proposed as an excellent starting point to look at this matter further and why we are consulting widely. We take this matter very seriously indeed.⁸

7 www.senseaboutscience.org.uk/index.php/site/project/421

8 HL Deb, 23 November 2009, col 127

It is absolutely the case that the Government recognise the central importance of the independence of scientific advice, and where that advice is taken. If the Government decide to go against that advice, and unless there are grounds, say, in the case of national security, they should explain why they have come to a different conclusion. That is one of principles proposed and it is an aspect on which we are consulting further.⁹

The majority of the [6 November] principles are already enshrined in the code of practice which scientific advisers adhere to when providing advice to the Government[...] We believe that the principles provide an excellent framework. They again set out some important pillars that underpin the relationship between science and government, but we believe that they need to be taken further. That is why we are working on consultation and will be making a statement on those principles before Christmas.¹⁰

9. We welcome Lord Drayson's commitment to resolve the concerns. It is important however, that the principles that emerge from the Government review will become part not only of the Code of Practice for Scientific Advisory Committees, but more importantly of the Guidelines on Scientific Analysis in Policy Making and of the Ministerial Code. We consider that it is of equal importance that scientists offer expert advice and ministers respond to that advice in accordance with clearly defined protocols.

10. In the limited time available we decided to issue a call for written submissions seeking views on the principles in the 6 November statement and on the principles that should apply to the treatment of independent scientific advice provided to government. The submissions we received are appended to this Report.¹¹ We are grateful to all those who have replied to our call for evidence. They include four former or current members of the ACMD.¹²

Previous reports

11. The Committee has commented on the treatment of independent scientific advice provided to government and the role and structures of science advisory councils in its previous reports and we set out at Annexes 2 and 3 to this Report the conclusions and recommendations that we consider to be most relevant to the Government's deliberations. We also include in the Annexes the Government's direct responses to these conclusions and recommendations. The Reports are:

9 HL Deb, 23 November 2009, col 128

10 *As above*

11 PR 01-20

12 PR 03 [Dr Ragan], PR 08 [Professor Iversen], PR 12 [Dr Measham] and PR 17 [Professor Nutt]

- a) at Annex 2, the November 2006 Report of the Science and Technology Committee, *Scientific Advice, Risk and Evidence Based Policy Making*¹³ and the Government's response;¹⁴ and
- b) at Annex 3, the July 2009 Report of the Innovation, Universities, Science and Skills Committee, *Putting Science and Engineering at the Heart of Government Policy*¹⁵ and the Government's response.¹⁶

12. We would, however, commend the Reports in their entirety to the Government during its deliberations on the principles applying to the treatment of independent scientific advice provided to government.

This report

13. We have divided our report into three sections:

- a) our conclusions and recommendations on the principles in the 6 November statement themselves at chapter 2;
- b) our conclusions and recommendations on the wider context of the operation and application of the principles at chapter 3; and
- c) wider issues at chapter 4.

Chapter 5 contains our general conclusions.

13 Science and Technology Committee, Seventh Report of 2005–06 Session, *Scientific Advice, Risk and Evidence Based Policy Making*, HC 900

14 Science and Technology Committee, First Special Report of 2006–07 Session, *Scientific Advice, Risk and Evidence Based Policy Making: Government Response to the Committee's Seventh Report of Session 2005–06*, HC 307

15 Innovation, Universities, Science and Skills Committee, Eighth Report of 2008–09 Session, *Putting Science and Engineering at the Heart of Government Policy*, HC 168–I

16 Science and Technology Committee, Ninth Special Report of 2006–07 Session, *Putting Science and Engineering at the Heart of Government Policy: Government Response to the Innovation, Science and Skills Committee's Eighth Report of Session 2008–09*, HC 1036

2 The content and terms of the principles

14. There was support from those who responded to our call for submissions on the terms of the principles, ranging from clear support¹⁷ to those who considered that they formed the starting point for the formulation of a more considered statement of principles.¹⁸ As we explain below the three principles in the 6 November statement are in step with the conclusions and recommendations that we made in our previous Reports and which we set out at Annexes 2 and 3. **We endorse and support the three broad principles set out in the 6 November statement applying to the treatment of independent scientific advice provided to government: (1) academic freedom; (2) independence of operation; and (3) proper consideration of advice.**

15. In the light of the submissions we have received we consider that the broad principles in the 6 November statement need some elaboration and refinement.

16. We are considering the recommendations in isolation, but it should be kept in mind that they should eventually be incorporated into the Guidelines, the Code of Practice and Ministerial Code.

Principle 1: Academic freedom

17. In its submission to us the Institute of Food Science and Technology made the point that:

Government must [...] recognise and accept the principle of academic freedom. If scientists have given of their time and expertise, and their advice is not acted upon, they must remain free to express their views, based on their scientific expertise and assessment.¹⁹

The Academy of Medical Sciences also made the point that

There is now an increasing expectation upon scientists that they will take their work into public forums, as demonstrated by the inclusion of these activities in the 'Impact' criteria of the Higher Education Funding Council for England's recent Research Excellence Framework proposals for assessing the quality of UK academic research. It is vital that scientists do not feel that a government advisory role will compromise their freedom to continue active research and to communicate their work.²⁰

18. It is important to recognise that many scientists would give a higher priority to their right to publish freely than the opportunity to advise Government and that without assurances on academic freedom there is a risk of finding that scientists do not come

17 For example, PR 02 [The Physiological Society], PR 07 [The Society for Biology], PR 08 [Professor Iversen], PR 09 [Institute of Food Science and Technology], PR 12 [Dr Measham]

18 PR 05 [Professor Jones], para 15

19 PR 09, para 7

20 PR 14, para 4

forward to fill positions on advisory committees. As we made clear in our recent Report, *Putting Science and Engineering at the Heart of Government Policy*, “the Government should seek specialist advice prior to making policy decisions, early in the policy-making process”.²¹ It is essential that the Government continues to have access to this advice and that minimal restraint is placed on the academic freedom of those willing to serve, for no remuneration, on scientific advisory committees. **In our view Government should include in the revised statement of principles a commitment by the Government to uphold and protect the academic freedom of those providing scientific advice to government and an explicit and clear recognition that experts can comment on government policy.**

19. We consider that the 6 November statement of principles strikes a good balance by placing the minimum necessary restrictions on a person serving on a scientific advisory committee speaking publicly on government policy, that is that the person should respect confidentiality, not claim to speak for the Government and should make it clear whether he or she is communicating on behalf of his or her committee.

Principle 2: Independence of operation

20. Similarly, in *Putting Science and Engineering at the Heart of Government Policy*, we considered it critical that scientific advisory committees were independent and were seen to be so.²² In our view this principle needs to be set out in the Government's statement of principles. **We recommend that the Government's statement of principles state clearly that scientific advisory committees are independent from government.**

Principle 3: Proper consideration of advice

21. We start from the position as summarised by the Institute of Food Science and Technology that “policy-making should be evidence-based and, therefore, if the issue is one which requires independent scientists to assess the scientific evidence in the light of current knowledge, and to provide advice based on such assessments, then it should usually be expected that the advice would be accepted after consultation with interested parties.”²³

22. In his memorandum to us Professor Iversen, a member of the ACMD, made the point that the Government appeared to have pre-judged some matters before the ACMD had stated its views.²⁴ Such a state of affairs would be reprehensible and would undermine the rationale of providing independent scientific advice to Government. We consider that the principles must ensure that proper consideration is given by the Government to the advice of scientific advisory committees. **We recommend that the Government's statement of principles contain a commitment that the Government will not prejudge the work of scientific advisory committees and will give proper consideration to scientific advice from committees.**

21 HC (2008-09) 168-I, para 69

22 HC (2008-09) 168-I, para 68; see also para 73.

23 PR 09, para 3

24 PR 08, para 2

23. We explained in *Putting Science and Engineering at the Heart of Government Policy* that the Government should be free to reject the advice of its scientific advisory committees, “since scientific evidence is only one factor—albeit a very important one—in policy decisions: Advisers advise, Ministers decide. However, when the Government does take a different policy decision to that recommended by a [scientific advisory committee], it should make clear its reasons for doing so”.²⁵ In its submission to us the Wellcome Trust pointed out that the Council of Science and Technology had recognised that

policy decisions involve difficult choices that need to take account of a very wide range of factors. Academics must recognise that where a particular view does not prevail, or where decisions are taken for political reasons, this does not mean the academic input was not valued.²⁶

We agree with this point. **We consider that the definition of the principle on the proper consideration of advice should include recognition that the Government can reject the advice of a scientific advisory committee but should explain why it chose not to follow the advice.**

24. The Wellcome Trust also made the point that the requirement in principle 3 that “Reports will not be criticised or rejected prior to publication” needed clarification to specify that it refers to criticism or rejection by Government alone.²⁷ We agree. **We recommend that requirement in principle 3 that “Reports will not be criticised or rejected prior to publication” be clarified to specify that it refers to public criticism or rejection by Government.**

Process for agreeing the principles

25. In order to secure broad agreement to the principles, we recommend that once the Government issues a set of principles in December, it should invite all interested parties, including all scientific advisory committees, to comment before they are finalised.

25 HC (2008-09) 168-I, para 69

26 PR 06, para 6

27 PR 06, para 8

3 The operation and application of the principles

26. It may be possible to devise comprehensive and impressive principles which government and members of scientific advisory committees can support but they will serve no purpose if the parties do not hold to them. In our view there are two prerequisites to the effective operation of the principles.

27. First, they need broad agreement, not just between the Government and scientists but also across the parties in the House. **We therefore recommend that the Government put the agreed principles and the supporting protocols before the House for endorsement.**

28. In this Report we do not examine the dismissal of Professor Nutt in detail but we consider that his case highlights a critical issue: the withholding and enforcement of the principles. **In our view it is critical that the principles promulgated by the Government are fully implemented in the working arrangements of the Government and scientific advisory committees. We therefore recommend that, once a set of principles have been agreed, the Government:**

- a) **issue a statement setting out how the principles will be upheld and enforced and how disputes about their interpretation and applicability resolved;**
- b) **ensure that in their review of the Guidelines that it fully supports and implements the principles;**
- c) **ensure that the Code of Practice makes reference to the principles and is consistent with them; and**
- d) **consider incorporating relevant aspects of the principles into the Ministerial Code.**

29. The circumstances leading up to Professor Nutt's dismissal highlight a number of issues that the principles and the arrangements underpinning them will need to address. We cite three areas: (1) the arrangements for obtaining definitive advice about the applicability of the principles in particular circumstances; (2) the role of, and duties placed on, the Government Chief Scientific Adviser and Departmental Chief Scientific Advisers in upholding and advising on the principles; and (3) the dismissal of a member of a scientific advisory committee.

Advice on the interpretation of the principles

30. For the principles to operate satisfactorily we consider that the Government needs to establish arrangements to allow members of scientific advisory committees and also those whom they advise to obtain consistent and clear advice on the interpretation and applicability of the principles. To enhance the independence of scientific advisory committees, the provision for this advice should be removed from departments and, to ensure consistency, there should be one source for the advice on the principles. **We conclude that the Government Office for Science should be given responsibility for**

advising members of scientific advisory committees, government departments and ministers they advise on the interpretation and applicability of the principles.

Dealing with disputes

31. For the new arrangements to work they need to be capable of resolving disputes which will inevitably arise. The current review of the Guidelines needs to invite views on the arrangements which the Government should put in place to resolve disputes. We consider that the Departmental Chief Scientific Advisers and ultimately the Government Chief Scientific Adviser could be given responsibility for ensuring that the Government upholds the principles and should have a responsibility for dealing with disputes between the Government and members of scientific advisory committees. **We recommend that in reviewing the Guidelines the Government bring forward arrangements for resolving disputes between members of scientific advisory committees and government departments and ministers.**

Dismissal of members of scientific advisory committees

32. We recognise that the Government has the right to dismiss members of scientific advisory committees—for example, for failure, for no good reason, to attend meetings. We further accept that breaching the principles or the Code of Practice are grounds for dismissal. But the dismissal of Professor Nutt highlighted a problem. As the Campaign for Science and Engineering said in its memorandum to us:

When the Home Secretary removed Professor Nutt from the ACMD he established a new precedent that scientific advisers can be summarily dismissed by ministers. Both the Principles document and the Code of Conduct for Scientific Advisory Committees need to have a statement that gives clarity to ministers and advisers about how and why an adviser can be removed from their position. The Government Chief Scientific Adviser must be consulted prior to a scientific adviser being dismissed from their position by a minister.²⁸

[...] The Government Chief Scientific Adviser (GCSA) has a critical role in ensuring that the ministers appreciate and adhere to the guidelines, codes and principles that govern the scientific advisory system. At the bottom of the Principles document should be the GCSA's name and number. The GCSA should be consulted by ministers when there are issues with science and engineering advice in government. The GCSA should take a more active role when there are issues between ministers and scientific advisers, especially if a minister wants to dismiss a scientific adviser.²⁹

33. We consider that, where breach of the principles or the Code of Practice are being cited as grounds for dismissal, there needs to be procedures in place, to assess and judge the alleged breach. In our view it should be the responsibility of the Government Chief Scientific Adviser to assess and report on alleged breaches of the principles and Code by members of scientific advisory committees. **We recommend that in its review of the**

28 PR 16, para 9

29 PR 16, para 10

Guidelines the Government bring forward arrangements governing the dismissal of a member of a scientific advisory committee for breach of the principles or the Code of Practice.

Rejection of a scientific advisory committee's advice

34. We have commented previously and reiterated above (see paragraph 23) that the Government should be free to reject the advice of its scientific advisory committees on the grounds that scientific evidence is only one factor that policy makers have to consider.³⁰ Where, however, the Government rejects the scientific advice itself, that is a different order or rejection which would cast doubt on the competence and purpose of a scientific advisory committee.

35. In the light of the representations we received on the dismissal of Professor Nutt and our consideration of the case, we conclude that in any case where the Government in formulating policy rejects expert scientific advice from a scientific advisory committee there needs to be arrangements that both the Government and the scientific advisory committees follow. To some extent these arrangements are set out under principle 3 (proper consideration of advice) in the 6 November statement but we consider that the arrangements need to be set out in more detail. **We recommend that, where the Government rejects the advice of expert advisory committees, it makes clear in writing to the chairman what part of the advice it is rejecting: scientific advice or other kinds of expert advice. Regarding scientific advice, the Government should only reject an expert committee's assessment of the scientific evidence in exceptional circumstances, and in these circumstances its reasons should be clearly laid out.**

Press Office

36. The Code of Practice stipulates that "Scientific advisory committees should decide on who should represent them to the media e.g. departmental press officer, independent press officer".³¹ In effect, this means that scientific advisory committees have at their disposal two options: using their home department's press office or using an independent press office, like the Science Media Centre.

37. In *Putting Science and Engineering at the Heart of Government Policy*, we identified the ACMD and Home Office as an example where a scientific advisory committee being represented by a departmental press office had proven problematic.³² We did not suggest that this example was representative of all the scientific advisory committees' experiences, but used it as an example of potential problems. We are assured that there are other examples where representation by the home department has been problematic, but the speed with which we have published this Report has not made it possible to corroborate these claims.³³

30 HC (2008-09) 168-I, para 69

31 Government Office for Science, *Code of Practice for Scientific Advisory Committees*, 2007, p 25

32 HC (2008-09) 168-I, paras 85-86

33 PR 15 [Sense About Science], para 4

38. The second option, an independent press office, which is suggested in the principles, may be problematic too. We have received evidence from the Health Protection Agency and the Wellcome Trust that an independent press office is “probably unnecessary”³⁴ and would not be “an appropriate use of resource”.³⁵ It would certainly be expensive to set up a permanent independent—i.e. outside government—press office for scientific advisory committees, or even to provide additional resource to an existing independent press office, like the Science Media Centre, to enable it to take on the additional work load.

39. It was for these reasons that we recommended that a small press office be set up within the Government Office for Science, to serve the press needs of GO-Science and all the scientific advisory committees across Government.³⁶ This recommendation was a half-way house between an independent press office (that is independent of government) and a departmental press office. A press office in GO-Science would still be a government press office requiring little additional resource, but it would be free of direct departmental control. It would also have the added benefit of strengthening the role of the Government Chief Scientific Adviser and GO-Science as the common point of contact for all scientific advisory committees.

40. We reiterate the recommendation we made earlier this year that a small press office be set up within the Government Office for Science, to serve the press needs of GO-Science and all the scientific advisory committees across Government.

34 PR 19 [HRA]

35 PR 06 [Wellcome Trust], para 8

36 HC (2008-09) 168-I, para 86

4 The treatment of scientific advice across government

41. The Campaign for Science and Engineering pointed out:

The dismissal of Professor David Nutt as chair of the Advisory Council on Misuse of Drugs (ACMD) has shown deficiencies in the government's scientific advisory system. CaSE believes that government should respond to this episode by developing a code of conduct for ministers on scientific advice and advisers based upon the Principles of Treatment of Independent Scientific Advice. It should also consider this episode when updating the Guidelines on Scientific Analysis in Policymaking. There is a need to look at the Code of Conduct for Scientific Advisory Committee as well with respect to this dismissal of advisers. The critical issue is to strengthen the integrity of the scientific advisory system.³⁷

42. The dismissal of Professor Nutt and the need for the Government to formulate a set of principles raises for us concerns whether:

- a) Government departments have implemented, or are complying with, the recommendations of the Phillips report issued following the BSE crisis—see Annex 2; and
- b) the Government's acceptance of the recommendations on the treatment of scientific advice and evidence-based policy of this committee and its predecessor committee—see Annexes 2 and 3—have been implemented.

We recommend that the Government appoint a panel to carry out a review and report within six months on the treatment of scientific advice across Government, in particular, the implementation of, and compliance with, the recommendations of the Phillips report issued following the BSE crisis and on the adequacy of the arrangements to protect the independence of scientific advice provided to Government.

5 Conclusion

43. We consider that a comprehensive statement of principles will help to delineate the roles of Government, scientific advisory committees and scientific advice to Government. In our view this is welcome. We consider that the principles need to be underpinned with administrative changes to ensure that they are effective.

44. In our view the principles published on 6 November fully accord with the thrust of the conclusions and recommendations made in our earlier Reports. We endorse and support the broad principles as proposed by Lord Rees and others and published by Sense About Science on 6 November 2009 and recommend a number of changes which we consider will clarify and enhance the application and operation of the principles.

45. We shall examine the Government's principles applying to the treatment of independent scientific advice provided to government when they are published. We may return to this issue before the end of the Parliament.

Conclusions and recommendations

Introduction

1. We welcome the Government's success in improving the mechanisms by which scientific advice can be fed through into policy. The network of Chief Scientific Advisers and scientific advisory committees has the potential to strengthen the UK's ability to make policy decisions that are based on the best available evidence and to make the UK Government's science advisory system an international exemplar. (Paragraph 2)
2. We consider that the principles should clearly cover evidence-based expert advice, including social science and statistics. (Paragraph 4)
3. We welcome Lord Drayson's commitment to resolve the concerns. It is important however, that the principles that emerge from the Government review will become part not only of the Code of Practice for Scientific Advisory Committees, but more importantly of the Guidelines on Scientific Analysis in Policy Making and of the Ministerial Code. We consider that it is of equal importance that scientists offer expert advice and ministers respond to that advice in accordance with clearly defined protocols. (Paragraph 9)

The content and terms of the principles

4. We endorse and support the three broad principles set out in the 6 November statement applying to the treatment of independent scientific advice provided to government: (1) academic freedom; (2) independence of operation; and (3) proper consideration of advice. (Paragraph 14)
5. In our view Government should include in the revised statement of principles a commitment by the Government to uphold and protect the academic freedom of those providing scientific advice to government and an explicit and clear recognition that experts can comment on government policy. (Paragraph 18)
6. We consider that the 6 November statement of principles strikes a good balance by placing the minimum necessary restrictions on a person serving on a scientific advisory committee speaking publicly on government policy, that is that the person should respect confidentiality, not claim to speak for the Government and should make it clear whether he or she is communicating on behalf of his or her committee. (Paragraph 19)
7. We recommend that the Government's statement of principles state clearly that scientific advisory committees are independent from government. (Paragraph 20)
8. We recommend that the Government's statement of principles contain a commitment that the Government will not prejudge the work of scientific advisory committees and will give proper consideration to scientific advice from committees. (Paragraph 22)

9. We consider that the definition of the principle on the proper consideration of advice should include recognition that the Government can reject the advice of a scientific advisory committee but should explain why it chose not to follow the advice. (Paragraph 23)
10. We recommend that requirement in principle 3 that "Reports will not be criticised or rejected prior to publication" be clarified to specify that it refers to public criticism or rejection by Government. (Paragraph 24)

The process for agreeing the principles

11. In order to secure broad agreement to the principles, we recommend that once the Government issues a set of principles in December, it should invite all interested parties, including all scientific advisory committees, to comment before they are finalised. (Paragraph 25)

The operation and application of the principles

12. We therefore recommend that the Government put the agreed principles and the supporting protocols before the House for endorsement. (Paragraph 27)
13. In our view it is critical that the principles promulgated by the Government are fully implemented in the working arrangements of the Government and scientific advisory committees. We therefore recommend that, once a set of principles have been agreed, the Government: (Paragraph 28)
 - a) issue a statement setting out how the principles will be upheld and enforced and how disputes about their interpretation and applicability resolved; (Paragraph 28(a))
 - b) ensure that in their review of the Guidelines that it fully supports and implements the principles; (Paragraph 28(b))
 - c) ensure that the Code of Practice makes reference to the principles and is consistent with them; and (Paragraph 28(c))
 - d) consider incorporating relevant aspects of the principles into the Ministerial Code. (Paragraph 28(d))
14. We conclude that the Government Office for Science should be given responsibility for advising members of scientific advisory committees, government departments and ministers they advise on the interpretation and applicability of the principles. (Paragraph 30)
15. We recommend that in reviewing the Guidelines the Government bring forward arrangements for resolving disputes between members of scientific advisory committees and government departments and ministers. (Paragraph 31)
16. We recommend that in its review of the Guidelines the Government bring forward arrangements governing the dismissal of a member of a scientific advisory committee for breach of the principles or the Code of Practice. (Paragraph 33)

17. We recommend that, where the Government rejects the advice of expert advisory committees, it makes clear in writing to the chairman what part of the advice it is rejecting: scientific advice or other kinds of expert advice. Regarding scientific advice, the Government should only reject an expert committee's assessment of the scientific evidence in exceptional circumstances, and in these circumstances its reasons should be clearly laid out. (Paragraph 35)

Press Office

18. We reiterate the recommendation we made earlier this year that a small press office be set up within the Government Office for Science, to serve the press needs of GO-Science and all the scientific advisory committees across Government. (Paragraph 40)

The treatment of scientific advice across government

19. We recommend that the Government appoint a panel to carry out a review and report within six months on the treatment of scientific advice across Government, in particular, the implementation of, and compliance with, the recommendations of the Phillips report issued following the BSE crisis and on the adequacy of the arrangements to protect the independence of scientific advice provided to Government. (Paragraph 42)

Conclusion

20. In our view the principles published on 6 November fully accord with the thrust of the conclusions and recommendations made in our earlier Reports. We endorse and support the broad principles as proposed by Lord Rees and others and published by Sense About Science on 6 November 2009 and recommend a number of changes which we consider will clarify and enhance the application and operation of the principles. (Paragraph 44)

Annex 1: The Statement of Principles for the Treatment of Independent Scientific Advice

Below is the Statement of Principles for the Treatment of Independent Scientific Advice and introduction as set out on the web pages of Sense About Science.³⁸

The *Modernising Government* White Paper of 1999 stated that “policy decisions should be based on sound evidence”. Large numbers of academic researchers and other experts give the Government the benefit of their expertise, usually without payment, through the work of independent scientific advisory bodies.

Independent advisers have responsibilities defined by the Government Office for Science Code of Practice for Scientific Advisory Committees, as well as the Terms of Reference and Codes for individual committees.

The following Statement of Principles for the Treatment of Independent Scientific Advice would enhance confidence in the scientific advisory system and help Government secure essential advice.

1. Academic Freedom

- Becoming a member of an independent advisory committee does not reduce the freedom of an adviser to communicate publicly, whether via scholarly publishing and conferences, through the general media or to parliament, subject to the restrictions in existing Codes of Practice, notably:
 - respecting confidentiality
 - not claiming to speak for the Government, and
 - making clear whether they are communicating on behalf of their committees

2. Independence of Operation

- Independent scientific advisory bodies are protected from political and other interference in their work
- In the context of independent scientific advice, disagreement with Government policy and the public articulation and discussion of relevant evidence and issues by members of advisory committees cannot be grounds for criticism or dismissal
- Advisory committees need the service of an independent press office

3. Proper Consideration of Advice

- Reports will normally be published and will not be criticised or rejected prior to publication
- If the Government is minded to reject a recommendation, the relevant scientific advisory committee will normally be invited to comment privately before a final decision is made
- It is recognised that some policy decisions are contingent on factors other than the scientific evidence, but when expert scientific advice is rejected the reasons should be described explicitly and publicly
- The advice of expert committees does not cease to be valid merely because it is rejected or not reflected in policy-making.

We ask the Government to affirm its support for these principles.

Annex 2: Report of the Science and Technology Committee, *Scientific Advice, Risk and Evidence Based Policy Making*

The former Science and Technology Committee commented on the principles applying to the treatment of independent scientific advice provided to government in its Report, *Scientific Advice, Risk and Evidence Based Policy Making*.³⁹ The conclusions and recommendations which the Committee considers to be most relevant are set out below.

Phillips Review

The Committee set out a selection of Lord Phillips' conclusions in Box 1.

Box 1: Some lessons highlighted by the Phillips Review

Departments should retain 'in house' sufficient expertise to ensure that the advice of advisory committees, and the reasoning behind it, can be understood and evaluated.

Government departments must review advice given by advisory committees to ensure that the reasons for it are understood and appear to be sound.

The proceedings of the [scientific advisory] committee should be as open as is compatible with the requirements of confidentiality.

The public should be trusted to respond rationally to openness.

Potential conflicts of interest should not preclude selection of those members otherwise best qualified, but conflicts of interest should be declared and registered.

When giving advice, an advisory committee should make it clear what principles, if any, of risk management are being applied.

Contingency planning is a vital part of government. The existence of advisory committees is not an alternative to this. The advisory committees should, where their advice will be of value, be asked to assist in contingency planning.

When a precautionary measure is introduced, rigorous thought must be given to every aspect of its operation with a view to ensuring that it is watertight.

It is not always clear in practice where responsibility rests as between ministers, officials and advisory committees for advising, determining policy and taking key decisions on medicines. This should be clarified, so as to ensure that important policy decisions are taken by, or approved by, ministers, whether those decisions are to take action or to take no action.

The progress of research and the implications of any new developments must be kept under continuous and open review.

External sources of advice

DEFRA's decision to introduce an independent Scientific Advisory Council to support the work of the departmental CSA is sensible and should be emulated by other

³⁹ HC (2005–06) 900

departments. It is critical that these Advisory Councils are independent and are seen to be so. (Paragraph 68)

Government response:

Accept in principle. This is a matter for individual departments and their DCSAs in the light of their particular situations. However the use of independent, high quality scientific advice and challenge to departments through SACs, both in specific areas and department-wide, are in many cases important means of helping the DCSA carry out his or her role effectively. CSAC will review and discuss the use of SACs across Government during 2007, to promote best practice.

Wherever possible, the secretariat of scientific advisory committees should include secondees from appropriate scientific establishments, to both enhance the specialist knowledge within the secretariat and safeguard its independence. (Paragraph 69)

Government response:

The Government welcomes secondments to SAC secretariats to provide specialist knowledge. OSI recently hosted a workshop for secretariats of SACs, aimed at networking and sharing best practice. The Spongiform Encephalopathy Advisory Committee (SEAC) Secretariat has set up a cross-departmental networking group for SAC secretariats. The membership of this group has doubled in two years.

We recommend that the revised Code of Practice for Scientific Advisory Committees provide explicit guidance on how the performance of these committees should be monitored. It should give departmental CSAs clear responsibility for overseeing the performance of scientific advisory committees sponsored by their Department and advise them to commission light-touch independent reviews every five years to ensure that committees are functioning as required and to identify innovations in working practices that could usefully be applied by other committees. (Paragraph 72)

No specific response.

Evidence Based Policy

We applaud Sir David King's efforts to integrate fully science into an evidence based approach. Government should also be clear when policy is not evidence-based, or when evidence represents only a weak consideration in the process, relative to other factors. [...] Where there is an absence of evidence, or even when the Government is knowingly contradicting the evidence—maybe for very good reason—this should be openly acknowledged. (Paragraph 89)

No specific response.

We agree that ministerial decisions need to take into account factors other than evidence, but this is not reflected in the Government's oft-repeated assertion that it is committed to pursuing an evidence based approach to policy making. We have detected little evidence of an appetite for open departure from the mantra of evidence based policy making. It would be more honest and accurate to acknowledge the fact that while

evidence plays a key role in informing policy, decisions are ultimately based on a number of factors—including political expediency. Where policy decisions are based on other such factors and do not flow from the evidence or scientific advice, this should be made clear. (Paragraph 90)

No specific response.

Annex 3: Report of the Innovation, Universities, Science and Skills Committee, *Putting Science and Engineering at the Heart of Government Policy*

Committee has commented on the principles applying to the treatment of independent scientific advice provided to government in the Report of the Innovation, Universities, Science and Skills Committee, *Putting Science and Engineering at the Heart of Government Policy*.⁴⁰ The conclusions and recommendations which the Committee considers to be most relevant are set out below.

Science Advisory Councils/Committees

SAC members should not be criticised for publishing scientific papers or making statements as professionals, independent of their role as Government advisers. (Paragraph 64)

Government response:

The Government agrees that the independence of science advisers is critical. It was precisely for this reason that the GCSA wrote to then-Home Secretary Jacqui Smith to express concern over her criticism, in Parliament, of Professor Nutt (Chairman of ACMD) with regard to an article he published in a peer-reviewed journal.

Since the then-Home Secretary's criticism of Professor Nutt, at least one SA Council, DefraSAC, has recruited a number of new members. As Professor Gaskell (Chair of DefraSAC) informed the Committee, applications were received from a large number of high calibre candidates.

The Government is not complacent, however, and as part of its annual monitoring of the health and functioning of SACs, all SACs, and their sponsor Chief Scientific Adviser, have been asked to report on succession planning and issues faced or identified in recruiting new members. Responses to this year's exercise are currently being collated and will be considered at the December meeting of the Chief Scientific Advisers Committee. The Government would be happy to report the findings of this exercise to the Committee.

It is important to safeguard the independence of the advisory system. In situations where the independence of a SAC chairman or member is or might be threatened for political reasons, support should be offered by the DCSA and/or the GCSA. (Paragraph 67)

⁴⁰ HC (2008-09) 168

We welcome the steps taken by the GCSA to deal with one incident that occurred between the Chairman of the ACMD and the Home Secretary. Further steps that should have been taken are: (1) the GCSA should have written or spoken to the Chairman of the ACMD, letting him know that support was being provided; (2) the correspondence between the GCSA and the Home Secretary should have been published immediately so that other SAC Chairmen and the public (including the science community) could see that support was being offered; and (3) the GCSA should have provided public support for the Chairman of the ACMD and for his right to publish. (Paragraph 68)

Government response:

The Government is committed to the provision of independent scientific advice, and to supporting the mechanisms and structures by which this advice is delivered. This is evidenced by its ongoing work to embed science and engineering advice in policy-making processes across government (through the appointment of CSAs and establishment of SA Councils, for example).

The Committee can be assured that the GCSA will take steps to support SAC Chairs and SAC members should he believe that their independence is being impinged upon. The Government does not, however consider it likely that instances of this occurring will be widespread or accept that the GCSA should routinely publish correspondence with SAC chairs, SAC members or Ministers. On the issue of public support, the GCSA will decide on the most effective action for dealing with any discord between the advice offered by SACs and the development of government policy.

The Government should seek specialist advice prior to making policy decisions, early in the policy-making process. Clearly the Government should be free to reject the advice of its SACs, since scientific evidence is only one factor—albeit a very important one—in policy decisions: Advisers advise, Ministers decide. However, when the Government does take a different policy decision to that recommended by a SAC, it should make clear its reasons for doing so. (Paragraph 69)

Government response:

The Committee correctly identifies that science (and engineering) evidence is only one of the factors that Ministers take into account when reaching a policy decision. As outlined in the Government's response to Recommendation 6 of this report, the Government has a long-held view that the evidence-base for any policy decision should be made publicly available and that, when the decision runs contrary to independent advice received (irrespective of the advisory structure), the reasons for rejecting this advice be outlined.

Guidance on when to seek expert science and engineering advice, and to publish this advice, is provided in the Government's *Guidelines on Scientific Analysis in Policy-making*. The Government is currently acting to update this document and will be launching a public consultation on the guidelines later this year. The Government would welcome consultation input from the Committee.

We conclude that there would be value in being clear in the Code of Practice as to what 'independence' means. Members of Science Advisory Committees are likely to represent the views of their constituencies; what is important is that they have no conflict of interest with Government. Therefore, in the case of Science Advisory Committees, 'independence' should mean 'independence from Government'. (Paragraph 73)

Government response:

The Government agrees that when used in relation to SACs, 'independence' should mean independent of government. This is reflected in the current version of the Code of Practice for Scientific Advisory Committees which states that: 'committee's advice [...] should be seen as independent of government'.

The Government will ensure that the independence of SACs from government is clearly reflected in the updated *Guidelines on Scientific Analysis in Policy-making*.

We can see the logic and agree that it is important that SAC advice should be presented to Ministers in advance of publication, giving them sufficient time to consider a response. However, it is also clear that SAC advice should, when it is given to Ministers, be final advice, and not a launching pad for debate. On this basis, we recommend that the process of SACs providing evidence to Ministers should be as transparent as possible. SAC evidence that is presented to Ministers should subsequently be published in unaltered form, along with the date on which the evidence was presented to Ministers and the details of any requests for alterations or clarifications of the evidence. (Paragraph 84)

Government response:

It is the longstanding view of Government that all independent advice it receives be made publicly available as a matter of routine. This view is clearly laid out in the Government's *Guidelines on Scientific Analysis in Policy-making* (see the Government's response to Recommendation 6 of this report), and, as set out below, in the Code of Practice for Science Advisory Committees (CoPSAC):

Advice should normally be made public by the scientific advisory committee at the time it is given or as soon as reasonably practicable thereafter. Where there are circumstances which justify giving advice in private, committees should consider whether the advice could be made public after a suitable time interval has passed. If so, they should publish the advice as soon as is reasonably practicable. Reasons for privacy should be consistent with the principles of Freedom of Information legislation [page 21].

We recommend that a small press office be set up within the Government Office for Science, to serve the press needs of GO-Science and all the Science Advisory Committees across Government. (Paragraph 86)

Government response:

GO-Science receives press office support from BIS, with the GCSA and GO-Science being served by a dedicated press officer. BIS press office and GO-Science are soon to be colocated, and the Government does not consider a separate GO-Science press office to be warranted.

It is the Government's view that there is not a 'one size fits all' approach to be taken to the provision of media support to SACs. In general, SACs receive press office support from their sponsor department. Government departments and SACs have close working relationships, and the provision of press office support to SACs by their sponsor department is not contentious.

On the rare occasion that a SAC has requested independent media support this has been arranged. The Government is therefore of the view that, as is current practice, the precise nature of support required by a SAC should be discussed on a case-by-case basis.

Formal Minutes

Wednesday 9 December 2009

Members present:

Mr Phil Willis, in the Chair

Mr Tim Boswell
Mr Ian Cawsey
Dr Evan Harris

Dr Brian Iddon
Ian Stewart
Graham Stringer

Draft Report (*The Government's review of the principles applying to the treatment of independent scientific advice provided to government*), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 45 read and agreed to.

Annexes agreed to.

Papers were appended to the Report.

Resolved, That the Report be the Third Report of the Committee to the House.

Ordered, That the Chairman make the Report to the House.

Written evidence was ordered to be reported to the House for printing with the Report together with written evidence reported and ordered to be published on 18 November.

[Adjourned till Wednesday 6 January at 9.00am.]

List of written evidence

PR Letter 1	Professor David Nutt
PR Letter 1a	Professor David Nutt
PR Letter 2	Rt Hon Alan Johnson MP, Home Secretary
PR Letter 3	Professor John Beddington
PR Letter 4	Professor Paul Wiles
PR 01	Professor G R Evans
PR 02	The Physiological Society
PR 03	Dr C Ian Ragan
PR 04	Environment Research Funders' Forum
PR 05	Professor David Albert Jones
PR 06	The Wellcome Trust
PR 07	Society of Biology
PR 08	Professor Leslie Iversen
PR 09	Institute of Food Science and Technology
PR 10	Institute of Physics
PR 11	Professor Neville Moray
PR 12	Dr Fiona Measham
PR 13	Royal Academy of Engineering
PR 14	Academy of Medical Sciences
PR 15	Sense About Science
PR 16	Campaign for Science & Engineering
PR 17	Professor David Nutt
PR 18	Dr Lionel R Milgrom
PR 19	Health Protection Agency
PR 20	Medical Research Council

List of Reports from the Committee during the current Parliament

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2009–10

First Report	The work of the Committee in 2008–09	HC 103
Second Report	Evidence Check 1: Early Literacy Interventions	HC 44
Third Report	The Government's review of the principles applying to the treatment of independent scientific advice provided to government	HC 158-I

Session 2008–09

First Report	Re-skilling for recovery: After Leitch, implementing skills and training policies	HC 48-I (HC 365)
Second Report	The Work of the Committee 2007–08	HC 49
Third Report	DIUS's Departmental Report 2008	HC 51-I (HC 383)
Fourth Report	Engineering: turning ideas into reality	HC 50-I (HC 759)
Fifth Report	Pre-appointment hearing with the Chair-elect of the Economic and Social Research Council, Dr Alan Gillespie CBE	HC 505
Sixth Report	Pre-appointment hearing with the Chair-elect of the Biotechnology and Biological Sciences Research Council, Professor Sir Tom Blundell	HC 506
Seventh Report	Spend, spend, spend? – The mismanagement of the Learning and Skills Council's capital programme in further education colleges	HC 530 (HC 989)
Eighth Report	Putting Science and Engineering at the Heart of Government Policy	HC 168-I (HC 1036)
Ninth Report	Pre-appointment hearing with the Chair-elect of the Science and Technology Facilities Council, Professor Michael Sterling	HC 887
Tenth Report	Sites of Special Scientific Interest	HC 717 (HC 990)
Eleventh Report	Students and Universities	HC 170-I (HC 991)

Session 2007–08

First Report	UK Centre for Medical Research and Innovation	HC 185 (HC 459)
Second Report	The work and operation of the Copyright Tribunal	HC 245 (HC 637)
Third Report	Withdrawal of funding for equivalent or lower level qualifications (ELQs)	HC 187-I (HC 638)
Fourth Report	Science Budget Allocations	HC 215 (HC 639)
Fifth Report	Renewable electricity-generation technologies	HC 216-I (HC 1063)
Sixth Report	Biosecurity in UK research laboratories	HC 360-I (HC 1111)
Seventh Report	Pre-legislative Scrutiny of the Draft Apprenticeships Bill	HC 1062-I (HC (2008–09)262)
First Special Report	The Funding of Science and Discovery Centres: Government Response to the Eleventh Report from the Science and Technology Committee, Session 2006–07	HC 214

Session 2007–08 (Continued)

Second Special Report	The Last Report: Government Response to the Thirteenth Report from the Science and Technology Committee, Session 2006–07	HC 244
Fourth Special Report	Investigating the Oceans: Government Response to the Science and Technology Committee's Tenth Report of Session 2006–07	HC 506 [incorporating HC 469–i]

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